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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/084,028      | 02/27/2002  | Ursula Murschall     | 01/036 MFE          | 8414             |

7590

12/22/2003

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| EXAMINER |
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| ART UNIT | PAPER NUMBER |
|----------|--------------|

1774

DATE MAILED: 12/22/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/084,028

Applicant(s)

MURSCHALL ET AL.

Examiner

Tamra L. Dicus

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 September 2003.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) 14-18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 and 19-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All   b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)                      4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)                      5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.                      6) ☐ Other:

## DETAILED ACTION

### *Claim Objections*

1. Claims 1 and 2 are objected to because of the following informalities: Claim 1 has misspelled the word "rutil". Appropriate correction is required. Claim 2 includes the trademarked term, "Sudan Blue 2". The use of trademarked terms in claims does not identify or describe the goods associated with the trademark or trade name. Trademarks or trade names are used to identify a source of goods, and not the goods themselves. See MPEP 2173.05(u). Replacement of trademarked terms with a generic description is advised.
2. Claim 10 is objected to because of the following informalities: Claim 10 has misspelled the compound. The nomenclature is not correct. Appropriate correction is required.

### *Double Patenting*

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claims 1-6, 13, (amended) and 19 (new) are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-7 of U.S. Patent No. 6,521,351 to Murschall et al. in view of USPN 6,627,695 to Murschall et al.

Although the conflicting claims are not identical, they are not patentably distinct from each other because the present claims differ only in the recitation of including a biaxially oriented film, a whiteness of 90% or greater, and a titanium dioxide. Murschall '351 claims the same total thickness range, opaque white film, UV stabilizers (equivalent to absorber), optical brightener, and soluble blue dye. Murschall '659 teaches a white biaxially oriented film that uses white pigments. The white pigments are provided to improve the whiteness of the film such pigments include both barium sulfate and titanium dioxide. This gives the film a brilliant white appearance. The concentration of barium sulfate or titanium dioxide is within the range from 1 to 25% by weight (within the same range as Applicant claims in instant claim 3). See col. 11, lines 15-55.

5. While Murschall '351 does not refer to a whiteness degree and does not use white pigment titanium dioxide, it would have been obvious to one of ordinary skill in the art to modify because Murschall '659 teaches using titanium dioxide and barium sulfate interchangeably to effect whiteness. Because the same weight percentage ranges of the aforesaid white pigments are the same range as Applicant, it would have been obvious to have a film exhibit a whiteness of 90% or greater.

6. While Murschall '351 does not refer to a white biaxially oriented film, Murschall '659 teaches a similarly constructed film that is biaxially oriented, providing how to stretch a white film to obtain such a property (col. 11, lines 45-55). It would have been obvious to one of

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ordinary skill in the art to modify the film of Murschall '351 to orient the film biaxially because Murschall '659 teaches it is conventional to do so.

7. To instant claim 5, Murschall '351 does not disclose a corona treatment to a film. However Murschall '659 teaches it is known to provide a corona treatment on the surface layer at col. 11, lines 50-55. It would have been obvious to one of ordinary skill in the art to modify the film of Murschall '351 to include a corona discharge to a film to provide a treatment as taught by Murschall '659 at col. 11, lines 50-55.

8. To instant claim 13, Murschall '351 does not teach regrind. Murschall '659 teaches regrind is included at col. 2, lines 50-55 as cut material to be reused. It would have been obvious to one of ordinary skill in the art to modify the material of Murschall '351 because Murschall '659 teaches regrind is cut material and reused that is included in white films. Moreover, the term "regrind" is a process-derived entity. Because it is of the same polyester material, the Examiner will regard it as such despite whether it was cut and reused, it is no different.

### ***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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10. Claims 1-6, 13, (amended) and 19 (new) are rejected under 35 U.S.C. 103(a) as being obvious over U.S. Patent No. 6,521,351 to Murschall et al. in view of USPN 6,627,695 to Murschall et al.

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). For applications filed on or after November 29, 1999, this rejection might also be overcome by showing that the subject matter of the reference and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person. See MPEP § 706.02(l)(1) and § 706.02(l)(2).

Murschall '351 teaches a white film, but does not teach including a biaxially oriented film, a whiteness of 90% or greater, and a titanium dioxide. Murschall '351 claims the same total thickness range, opaque white film, UV stabilizers (equivalent to absorber. Same UV percentages as instant claim 6), optical brightener, and soluble blue dye (same ppm as instant

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claim 6). Murschall '659 teaches a white biaxially oriented film that uses white pigments. The white pigments are provided to improve the whiteness of the film such pigments include both barium sulfate and titanium dioxide. This gives the film a brilliant white appearance. The concentration of barium sulfate or titanium dioxide is within the range from 1 to 25% by weight (within the same range as Applicant claims in instant claim 3). See col. 11, lines 15-55.

11. While Murschall '351 does not refer to a whiteness degree and does not use white pigment titanium dioxide, it would have been obvious to one of ordinary skill in the art to modify because Murschall '659 teaches using titanium dioxide and barium sulfate interchangeably to effect whiteness. Because the same weight percentage ranges of the aforesaid white pigments are the same range as Applicant, it would have been obvious to have a film exhibit a whiteness of 90% or greater.

12. While Murschall '351 does not refer to a white biaxially oriented film, Murschall '659 teaches a similarly constructed film that is biaxially oriented, providing how to stretch a white film to obtain such a property (col. 11, lines 45-55). It would have been obvious to one of ordinary skill in the art to modify the film of Murschall '351 to orient the film biaxially because Murschall '659 teaches it is conventional to do so.

13. To instant claim 5, Murschall '351 does not disclose a corona treatment to a film. However Murschall '659 teaches it is known to provide a corona treatment on the surface layer at col. 11, lines 50-55. It would have been obvious to one of ordinary skill in the art to modify the film of Murschall '351 to include a corona discharge to a film to provide a treatment as taught by Murschall '659 at col. 11, lines 50-55.

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14. To instant claim 13, Murschall '351 does not teach regrind. Murschall '659 teaches regrind is included at col. 2, lines 50-55 as cut material to be reused. It would have been obvious to one of ordinary skill in the art to modify the material of Murschall '351 because Murschall '659 teaches regrind is cut material and reused that is included in white films. Moreover, the term "regrind" is a process-derived entity. Because it is of the same polyester material, the Examiner will regard it as such despite whether it was cut and reused, it is no different.

***Claim Rejections - 35 USC § 103***

15. Claims 1-4, 13, (amended) and 19-21 (new) are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,436,219 to Francis in view of EP 0 942 031 A to Miki

16. Francis teaches a white, opaque polyester film of PET that is biaxially oriented (col. 2, lines 40-55). See col. 3, line 1.

17. The thickness shown in Francis is between Applicant's claimed range at col. 3, lines 65-col. 4, line 5 and col. 7, lines 25-35 as per instant claim 1. Titanium dioxide is used as disclosed in col. 4, lines 5-35. The pigment is between 5 and 60% by weight as instant claim 3 of titania. See col. 4, line 50. Optical brightener glycol is added at col. 6, lines 20-30 within 50 to 1500 ppm by weight and the polyester or PET includes polyethylene glycol as disclosed in col. 2, lines 10-40 (instant claim 21). Col. 7, lines 6-20 describe a 100 ppm of a blue dye, included in Applicant's instant claim 6 range between 10 to 10,000 ppm. Francis teaches modification of the surface of the primer layer e.g. by flame treatment, ion bombardment, electron beam treatment or preferably by corona discharge, may improve the adhesion at col. 9, lines 4-10 (instant claim 5).

18. Francis does not disclose the weight percentage by weight of a thermoplastic as instant claim 3. Francis does not disclose a whiteness percentage of 90% or more. Miki teaches a white



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polyester film, which is biaxially oriented. Miki provides a thickness of 188 microns in Table 1, falling within Applicant's claimed range as per instant claim 1. A white pigment is added such as rutile titania. See [0036] and [0068]. Example 1 provides a mixture of 13 wt. % of rutile titania, falling in Applicant's range as per instant claim 3. [0019] provides the polyester resins of instant claim 2. Miki provides a high whiteness value in Table 2. While Francis nor Miki do not disclose a whiteness of 90% or more, it would have been obvious to one of ordinary skill in the art to modify the film of Francis to include a thermoplastic and whiteness percentage because Miki and Francis provide the same weight percentage range of white pigment inclusion with a thermoplastic as cited above.

19. Francis does not teach an optical brightener of triazine derivative or the ppm amounts as per instant claim 4. Lai teaches this derivative at col. 9, lines 60-68 for improving heat and oxygen stability at col. 9, lines 40-68. It would have been obvious to one of ordinary skill in the art to modify the white film of Francis to include a triazine derivative for the purpose of improving heat and oxygen stability as taught by Lai at col. 9, lines 40-68. To the absence of the ppm amounts of instant claim 4, it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272. The weight percent effects the degree of oxygen stability or instability.

20. To instant claim 5, Francis discloses a corona treatment to a film as the preferred treatment at col. 9, lines 4-20 as a suitable modification.

21. To instant claim 13, Francis does not teach regrind. However, "regrind" is the same material and is a process-derived entity as described by Applicant in Arguments. Because it is of the same

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polyester material, the Examiner will regard it as such despite whether it was cut and reused-it is no different.

Claims 5-7 and 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,436,219 to Francis in view of EP 0 942 031 A to Miki and further in view of USPN 4,415,684 to Lai et al., as applied above.

Francis does not teach a UV absorber or percentages of instant claims 5-7. Lai provides a UV-light-stable compositions having discovered an organic compound particularly a polymeric substrate such as a polyester, has uniformly dispersed therein, an effective amount of a polysubstituted 1,5-diazacycloalkane UV-light absorbing compound sufficient to make the organic compound UV light stable. See Lai, col. 3, lines 15-25. Various similar compounds are listed at col. 7, lines 1-20 and col. 8, lines 1-10. See also Example 2 of Lai. It would have been obvious to one of ordinary skill in the art to modify the white film of Francis to include a UV absorber such as instant claims 5-7 because Lai teaches compounds such as these are used in polyester substrates to produce UV light stable substrates. Francis suggests using UV stabilizers as additives in polyester film (col. 9, line 56.). It would have been obvious to one of ordinary skill in the art to modify the percentage because it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272. The weight percent effects the degree of UV stability or instability.

22. Francis does not teach a phenolic stabilizer or the percentages (instant claims 11-12). Lai teaches such compounds at col. 9, lines 25-68. It would have been obvious to one of ordinary skill in the art to modify the white film of Francis to include such stabilizers because Lai teaches adding such compounds achieve both UV light and oxygen stability as cited above. It has been

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held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272. The weight percent effects the degree of UV stability or instability.

23. Claims 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,436,219 to Francis in view of EP 0 942 031 A to Miki and further in view of USPN 4,415,684 to Lai et al. and USPN 4,033,936 to Bollert et al., as applied to claims 1 and 5 above.

24. Francis is relied upon above. Francis does not disclose a flame retardant is an organic phosphorous such as carboxyphoshinic acid or anhdride as in instant claims 8 and 9. Bollert discloses a process for manufacture of flame retarding linear polyesters. Bollert teaches it is conventional to add carboxyphoshinic acids and other anhydrides to polyesters (polyethylene terephthalate (PET) is inclusive) at col. 1, line 65-col. 2, line 7 to provide flame retarding properties. Hence it would have been obvious to one of ordinary skill in the art to modify the white film of Francis to further include carboxyphoshinic acids and other anhydrides for the purpose of providing flame retarding properties as taught by Bollert at col. 1, lines 54-63.

While neither reference teaches the compound of claim 10, it would have been obvious to one of ordinary skill in the art to modify because Bollert provides a similar chemical structure of similar start-up phosphorous compounds at col. 1, lines 10-50, col. 3, and col. 4-col. 5.

Therefore, a reasonable expectation of success is founded in the prior art. *In re Vaeck*, 947 F.2d 488. See MPEP § 2143 - § 2143.03.

*Response to Arguments*

Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection. Regarding the compound of instant claim 10, the nomenclature is still not correct. The use of the " $\lambda$ " symbol is improper.

Bollert is still relied upon to teach the organic phosphorous compounds of Applicant. Applicant alleges Bollert is completely silent to white polyester films. The Examiner does not use Bollert to provide this limitation, but Francis provides this limitation as previously set forth. See Francis adding titania, a white pigment, see col. 4, line 50. Bollert provides at col. 1, lines 34-68 using organic phosphorous compounds such as carboxyphosphinic acids, in polyester films. Therefore, motivation exists to combine the two aforesaid references, thereby the 103 is a proper rejection.

*Conclusion*

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

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CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tamra L. Dicus whose telephone number is (703) 305-3809. The examiner can normally be reached on Monday-Friday, 7:00-4:30 p.m., alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly can be reached on (703) 308-0449. The fax phone number for the organization where this application or proceeding is assigned is (703) 746-8329.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Tamra L. Dicus  
Examiner  
Art Unit 1774

December 5, 2003

CYNTHIA M. KELLY  
SUPERVISOR, ART UNIT 1774  
DEC 10 2003

*Cynthia M. Kelly*